











G195, and N535 of SEQ ID NO: 10 of the wild-type galactose oxidase, and wherein the variant has improved D-galactose oxidation activity as compared to the wild-type galactose oxidase.

102. (Previously presented) The isolated variant of claim 101, wherein the V494 mutation is V494A, the S10 mutation is S10P, the M70 mutation is M70V, the G195 mutation is G195E, and the N535 mutation is N535D.

103. (Currently amended) An isolated galactose oxidase variant which has at least 90% amino acid sequence identity to a wild-type galactose oxidase having the sequence of SEQ ID NO:10 wherein the amino acid D at position 537 of SEQ ID NO: 10 is N in the wild-type , which variant has a mutation in an amino acid corresponding to N413 in SEQ ID NO:10.

104. (Previously presented) The isolated variant of claim 103, wherein the mutation is N413D.

105. (Currently amended) An isolated galactose oxidase variant which has at least 90% amino acid sequence identity to a wild-type *D. dendroides* galactose oxidase having the sequence of SEQ ID NO:10 wherein the amino acid D at position 537 of SEQ ID NO: 10 is N in the wild-type of ATCC46032 and a mutation in an amino acid corresponding to N413 of the wild-type galactose oxidase SEQ ID NO: 10, wherein the variant has improved D-galactose oxidation activity as compared to the wild-type galactose oxidase.

106. (Previously presented) The isolated variant of claim 105, wherein the N413 mutation is N413D.

107. (Currently Amended) An isolated galactose oxidase variant which has at least 90% amino acid sequence identity to a wild-type galactose oxidase having the sequence of SEQ ID NO:10 wherein the amino acid D at position 537 of SEQ ID NO: 10 is N in the wild-type which variant has mutations in amino acids corresponding to N413 and V494 of SEQ ID NO:10.

108. (Previously presented) The isolated variant of claim 107, wherein the N413 mutation is N413D, and the V494 mutation is V494A.







125. (Currently amended) The isolated variant of claim 109, wherein the galactose oxidase variant has about 99% amino acid sequence identity to the wild-type *D. dendroides* galactose oxidase of ATCC 46032.